



AKAL UNIVERSITY

TALWANDI SABO

(Established under Punjab State Act No. 25 of 2015)

FACULTY OF LIFE SCIENCES

DEPARTMENT OF BOTANY

Syllabi & Courses of Study

For

MASTER OF SCIENCE IN BOTANY

(under Honours School scheme)

2019-2021

SEMESTER: I
SCHEME OF TEACHING & EXAMINATION

| NATURE OF COURSE | COURSE CODE | COURSE NAME/TITLE | SCHEDULE OF TEACHING (HRS. PER WEEK) | | | CREDITS | MARKS | | |
|------------------|-------------|-------------------------------|--------------------------------------|----------|-----------|-----------|---|---|--|
| | | | LECTURE | TUTORIAL | PRACTICAL | | <u>INTERNAL ASSESSMENT</u> Theory/Practicals | <u>MULTIPLE CHOICE EXAMINATION / PRACTICAL FILE</u> | <u>END SEMESTER EXAMINATION</u> Theory/Practicals |
| Core | BOT06C101 | Phycology and Bryology | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C102 | Applied and Industrial Botany | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C103 | Cytogenetics | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C104 | Bio-Statistics | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| | | Total | 20 | | 8 | 24 | 120 | 120 | 360 |

SEMESTER: II
SCHEME OF TEACHING & EXAMINATION

| NATURE OF COURSE | COURSE CODE | COURSE NAME/TITLE | SCHEDULE OF TEACHING (HRS. PER WEEK) | | | CREDITS | MARKS | | |
|------------------|-------------|-------------------------------------|--------------------------------------|----------|-----------|-----------|---|--|--|
| | | | LECTURE | TUTORIAL | PRACTICAL | | <u>INTERNAL ASSESSMENT</u> Theory/Practicals | <u>MULTIPLE CHOICE EXAMINATION/ PRACTICAL FILE</u> | <u>END SEMESTER EXAMINATION</u> Theory/Practicals |
| Core | BOT06C201 | Pteridophytes and Gymnosperms | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C202 | Angiosperms-Phylogeny and Taxonomy | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C203 | Advanced Molecular Biology | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C204 | Angiosperms: Anatomy and Embryology | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| | | Total | 20 | | 8 | 24 | 120 | 120 | 360 |

SEMESTER: III
SCHEME OF TEACHING & EXAMINATION

| NATURE OF COURSE | COURSE CODE | COURSE NAME/TITLE | SCHEDULE OF TEACHING (HRS. PER WEEK) | | | CREDITS | MARKS | | |
|------------------|-------------|-------------------------------------|---|----------|-----------|-----------|---|--|--|
| | | | LECTURE | TUTORIAL | PRACTICAL | | <u>INTERNAL ASSESSMENT</u> Theory/Practicals | <u>MULTIPLE CHOICE EXAMINATION/ PRACTICAL FILE</u> | <u>END SEMESTER EXAMINATION</u> Theory/Practicals |
| Core | BOT06C301 | Mycology and Plant Pathology | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C302 | Biochemistry | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C303 | r DNA Technology and Bioinformatics | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C304 | Methodology and Instrumentation | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| | | Student's Seminar | | | | 1 | | | 25 |
| | | Total | 20 | | 8 | 25 | 120 | 120 | 385 |

SEMESTER: IV
SCHEME OF TEACHING & EXAMINATION

| NATURE OF COURSE | COURSE CODE | COURSE NAME/TITLE | SCHEDULE OF TEACHING (HRS. PER WEEK) | | | CREDITS | MARKS | | |
|------------------|-------------|--|--------------------------------------|----------|-----------|-----------|---|---|--|
| | | | LECTURE | TUTORIAL | PRACTICAL | | <u>INTERNAL ASSESSMENT</u> Theory/Practicals | <u>MULTIPLE CHOICE EXAMINATION / PRACTICAL FILE</u> | <u>END SEMESTER EXAMINATION</u> Theory/Practicals |
| Core | BOT06C401 | Evolutionary Biology | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C402 | Plant Ecology and Environmental Botany | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C403 | Advanced Plant Biotechnology | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| Core | BOT06C404 | Advanced Plant Physiology | 5 | - | 2 | 6 | 20/10 | 20/10 | 60/30 |
| | | Student's Seminar | | | | 1 | | | 25 |
| | | Total | 20 | | 8 | 25 | 120 | 120 | 385 |